

## ABSTRACT

A power transmitter, such as an automotive vehicle drive shaft, mounts via a pinion gear to a differential to transmit mechanical power to the wheels and thus propel the automotive vehicle. Such drive shafts traditionally mount to a differential/axle pinion gear interface flange via a splined connection, with a male spline on the axle pinion gear and a female spline on a flange or other mounting device. Replacing the spline with a polygonal coupling reduces backlash and rotational imbalance, and enables a better connection between the drive shaft and the differential. The polygonal fitting may also be used for making other connections.

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